



# PUBLIC NOTICE

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## PUBLIC SAFETY AND HOMELAND SECURITY BUREAU SEEKS COMMENT ON PARTIAL REQUEST FOR WAIVER FILED BY THE LOJACK CORPORATION

WT Docket No. 06-142

Comment Date: February 8, 2011

Reply Comment Date: February 18, 2011

The Public Safety and Homeland Security Bureau (the Bureau) seeks comment on a request for partial waiver<sup>1</sup> of Sections 90.20(e)(6) and 2.106 of the Commission's rules,<sup>2</sup> which provide for operation of Stolen Vehicle Recovery Systems (SVRS) on frequency 173.075 MHz, filed by the LoJack Corporation (LoJack). In 2008, the Commission amended Section 90.20(e)(6) to permit, *inter alia*, the tracking of missing persons and individuals at risk using SVRS technology.<sup>3</sup> To enhance the ability of the law enforcement and the public safety community to perform their duties in this context, but not necessarily limited to this context, LoJack seeks a waiver: (i) for "the ability to activate the frequency [*i.e.*, transmit activation signals on the frequency] using a portable device as opposed to a base station," and (ii) "to allow any Public Safety Pool eligible, not just police entities, to activate the frequency using a portable device."<sup>4</sup> The Bureau also seeks comment on an amendment filed by LoJack to seek a waiver for a duty cycle of 1000 milliseconds every 8 seconds for transmitting activation signals.<sup>5</sup>

In 1989, the Commission designated frequency 173.075 MHz for use by SVRS licensees<sup>6</sup> on a shared basis with the Federal Government.<sup>7</sup> LoJack has developed and operates a stolen vehicle recovery network in cooperation with state and local police departments across the nation.<sup>8</sup> The Commission

<sup>1</sup> See Request for Partial Waiver filed by the LoJack Corporation on June 30, 2010 (Waiver Request).

<sup>2</sup> 47 C.F.R. §§ 90.20(e)(6), 2.106.

<sup>3</sup> See Amendment of Section 90.20(e)(6) of the Commission's Rules, WT Docket No. 06-142, RM-11135, *Report and Order*, 23 FCC Rcd 12601 (2008) (*New Services Report and Order*).

<sup>4</sup> See Waiver Request at 1.

<sup>5</sup> See Amendment to Request for Partial Waiver filed by the LoJack Corporation on July 28, 2010 (Amendment).

<sup>6</sup> See Amendment of Parts 2 and 90 of the Commission's Rules to Provide for Stolen Vehicle Recovery Systems, Gen. Docket No. 88-566, *Report and Order*, 4 FCC Rcd 7558, 7558 ¶ 1 (1989).

<sup>7</sup> The 162.0125-173.2 MHz band is allocated on a primary basis to the Federal Government for fixed and mobile operations. Non-Federal Government SVRS operations may also be authorized on frequency 173.075 MHz on a primary basis. See 47 C.F.R. § 2.106 n. US312.

<sup>8</sup> See *New Services Report and Order*, 23 FCC Rcd at 12603 ¶ 3.

licenses SVRS operations on frequency 173.075 MHz to law enforcement agencies on a shared, non-exclusive basis. Under the traditional stolen vehicle recovery model, LoJack's network operates as follows: LoJack and the licensed law enforcement agency install in each LoJack-registered vehicle a vehicle location unit (VLU) that remains dormant until the owner reports a vehicle theft. Once police receive a stolen vehicle report, the officials send an electronic message to a central law enforcement computer, which causes a network of radio base stations licensed to the police to broadcast an activation message on frequency 173.075 MHz that instructs the particular VLU to begin transmitting a brief "tracking" message, also on frequency 173.075 MHz. The VLU tracking message contains a unique reply code that is received by vehicle tracking units located in law enforcement vehicles. Police identify the vehicle make, model and registration from the reply code, and then "home in" on the tracking message using vehicle tracking units.

In 2008, the Commission implemented changes to the SVRS rules to allow for the tracking of missing persons and individuals at risk, among other changes.<sup>9</sup> As a result of this rule change, LoJack states that it "is developing a system to track persons at risk, such as Alzheimer's patients, nursing home residents with dementia, and children with disabilities, using in part the 173.075 MHz frequency."<sup>10</sup> According to LoJack, "persons at risk would wear wristwatch-like devices" that have the similar function to VLUs. When activated, these wearable devices "could be tracked by the same tracker device currently installed in police vehicles that is now used to track stolen vehicles."<sup>11</sup> Additionally, LoJack "is developing a Portable Activation Tracker (PAT), a handheld portable device that would be used to activate and track the wristwatch mobile devices over limited geographical areas."<sup>12</sup> LoJack notes that "[a] PAT could be used on another frequency when activation and tracking is done by non-law enforcement entities, but would be used on 173.075 MHz for searches of missing persons performed by law enforcement."<sup>13</sup>

LoJack contends that "[t]racking persons at risk differs from tracking vehicles in several ways."<sup>14</sup> LoJack argues that "[m]uch more is at stake if missing persons are not found quickly."<sup>15</sup> For example LoJack states that studies show that "missing Alzheimer's patients not found within 24 hours have a 45% risk of death."<sup>16</sup> LoJack also notes that "Alzheimer's patients tend to move away from people."<sup>17</sup> For example, "missing persons can hide or get lost in the woods and other areas where police vehicles cannot go."<sup>18</sup> Thus, LoJack argues that "it is important to have greater flexibility and accuracy in a tracking system designed to track missing persons."<sup>19</sup> LoJack states that in many jurisdictions, entities "such as fire departments and search and rescue teams, are responsible for searching for missing individuals."<sup>20</sup>

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<sup>9</sup> *See id.*, 23 FCC Rcd at 12619 ¶ 47.

<sup>10</sup> Waiver Request at 2.

<sup>11</sup> *Id.*

<sup>12</sup> *Id.*

<sup>13</sup> *Id.*

<sup>14</sup> *Id.*

<sup>15</sup> *Id.*

<sup>16</sup> *Id.*

<sup>17</sup> *Id.*

<sup>18</sup> *Id.*

<sup>19</sup> *Id.*

<sup>20</sup> *Id.*

LoJack continues, “even when a missing persons report is filed with the police, another public safety entity may be assigned to look for the individual.”<sup>21</sup> LoJack posits that “[t]he PAT could be used when a base station could not be used to activate the tracker worn by the missing person, whether because the base stations have been optimized to cover streets and highways, or there is simply no base station coverage, or tracking must be done on foot in wooded areas.”<sup>22</sup>

On July 28, 2010, LoJack filed an Amendment to its previously filed Request for Partial Waiver.<sup>23</sup> Specifically, LoJack clarifies that it “requires a duty cycle of up to 1000 milliseconds over every 8 seconds for the purpose of activating mobile units.”<sup>24</sup> LoJack states that the “new generation of mobile units being introduced required [sic] changes to LoJack’s network that result in the use of an indexing system different from what was used previously.”<sup>25</sup> LoJack continues, “[t]his indexing process assigns each device a specific ‘frame’ within a tower transmission, reducing the amount of time that the mobile unit consumes power listening for its activation code.”<sup>26</sup> LoJack argues that as a result, VLU and wrist-watch type mobile units “will use substantially less power, allowing for a battery-powered unit and for a lower power draw from the vehicle electrical system in a vehicle-powered unit.”<sup>27</sup> LoJack contends that the new indexing process will require longer transmission times in order to effectively activate the system. Specifically, “the interplay of the indexing process and the duty cycle limitations in the present rules (which were established before the development of indexing) could introduce delays of up to 20 minutes in the activation and tracking process.”<sup>28</sup> The proposed duty cycle “would allow for activation of the lower powered mobile units and materially improve efficiency in life-threatening circumstances” and “will improve the efficiency of police tracking of out-of-network stolen vehicles.”<sup>29</sup> The proposed duty cycle would allow more frequent activation transmissions for base stations in particular. A base station transmits once per minute under the current duty cycle rule.<sup>30</sup> With the proposed duty cycle, the system would transmit activations more frequently, every 8 seconds, which could increase the probability that a targeted mobile unit will acknowledge sooner. LoJack notes that “once a mobile unit ... acknowledges the activation signal, transmission of the activation signal stops.”<sup>31</sup> As a result, in the case of base stations, LoJack argues that “the total time over which the activation commands will be sent is shortened.”<sup>32</sup>

First, we seek comment on LoJack’s request for the ability to transmit activation signals on frequency 173.075 MHz using a portable device as opposed to a base station. Section 90.20(e)(6)(i) states, in part, “[m]obile units may also transmit automatic collision notifications, vehicle fire

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<sup>21</sup> *Id.*

<sup>22</sup> *Id.* at 3.

<sup>23</sup> *See* Amendment.

<sup>24</sup> *Id.* at 1.

<sup>25</sup> *Id.*

<sup>26</sup> *Id.*

<sup>27</sup> *Id.*

<sup>28</sup> *Id.* at 1-2.

<sup>29</sup> *Id.* at 2.

<sup>30</sup> *See* 47 C.F.R. § 90.20(e)(6)(vi).

<sup>31</sup> Amendment at 2.

<sup>32</sup> *Id.*

notifications, and carjacking alerts.”<sup>33</sup> LoJack argues that “[t]ransmissions from mobiles to activate the frequency would be in line with these activities.”<sup>34</sup>

Next, we seek comment on LoJack’s request to allow any Public Safety Pool eligible, not just police entities, to activate a mobile or portable device on frequency 173.075 MHz. Section 90.20(e)(6)(vii) states in part, “[a]ny entity eligible to hold authorizations in the Public Safety Pool in accordance with §§ 90.20(a) and 90.111 of this chapter is authorized by this rule to operate mobile transmitters on this frequency.”<sup>35</sup> LoJack “interprets Section 90.20(e)(6)(vii) as allowing for this use, as it provides that any Public Safety Pool eligible can operate a mobile transmitter.”<sup>36</sup> However, Section 2.106, footnote US312 states, “[t]he frequency 173.075 MHz may also be authorized on a primary basis to non-Federal stations in the Public Safety Radio Pool, limited to police licensees, for stolen vehicle recovery systems (SVRS).”<sup>37</sup>

Finally, we seek comment on whether we should waive these rules to allow a new duty cycle of 1000 milliseconds every 8 seconds for transmitting activation signals. Because base stations as well as the proposed PAT devices would be transmitting activation messages using the new duty cycle, a waiver of all of the duty cycle rules appears necessary. Sections 90.20(e)(6)(v) states that transmissions from mobiles shall be limited to 400 milliseconds for every 10 seconds, except when a vehicle is being tracked actively transmissions are limited to 400 milliseconds for every second.<sup>38</sup> Alternatively, transmissions from mobiles shall be limited to 7200 milliseconds for every 300 seconds with a maximum of six such messages in any 30 minute period. Sections 90.20(e)(6)(vi) states that transmissions from base stations shall be limited to a total rate of five seconds every minute.<sup>39</sup> We seek comment on whether a waiver of the duty cycle as proposed would significantly impact TV Channel 7 reception in the adjacent band 174-180 MHz, or on Federal use of frequency 173.075 MHz.<sup>40</sup>

Pursuant to Sections 1.415 and 1.419 of the Commission’s rules, 47 C.F.R. §§ 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this *Public Notice*. All comments and reply comments should reference the subject Waiver Request, the docket number, and the DA number indicated on this *Public Notice*. Comments may be filed using: (1) the Commission’s Electronic Comment Filing System (ECFS), or (2) by filing paper copies.

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <http://fjallfoss.fcc.gov/ecfs2/>.

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<sup>33</sup> 47 C.F.R. § 90.20(e)(6)(i).

<sup>34</sup> Waiver Request at 3.

<sup>35</sup> 47 C.F.R. § 90.20(e)(6)(vii).

<sup>36</sup> Waiver Request at 3.

<sup>37</sup> 47 C.F.R. § 2.106 footnote US312.

<sup>38</sup> 47 C.F.R. § 90.20(e)(6)(v). Transmissions from mobiles shall be limited to 400 milliseconds for every 10 seconds, except when a vehicle is being tracked actively transmissions are limited to 400 milliseconds for every second. Alternatively, transmissions from mobiles shall be limited to 7200 milliseconds for every 300 seconds with a maximum of six such messages in any 30 minute period. *Id.*

<sup>39</sup> 47 C.F.R. § 90.20(e)(6)(vi). Transmissions from base stations shall be limited to a total rate of five seconds every minute. *Id.*

<sup>40</sup> See generally 47 C.F.R. § 90.20(e)(6).

- Paper Filers: Parties who choose to file by paper must submit an original and four copies of each filing.

Filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

- All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12<sup>th</sup> St., SW, Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes must be disposed of before entering the building.
- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12<sup>th</sup> Street, SW, Washington DC 20554.

The waiver request, and comments and reply comments can be accessed electronically via ECFS, <http://fjallfoss.fcc.gov/ecfs2/>. The full text of the Waiver Request, comments and reply comments will be available for inspection and duplication during regular business hours in the FCC Reference Information Center (RIC) of the Consumer and Governmental Affairs Bureau, Federal Communications Commission, 445 12<sup>th</sup> Street, S.W., Room CY-A257, Washington, DC 20554. Copies may be purchased from the Commission's duplicating contractor, Best Copy and Printing, Inc. (BCPI), Portals II, 445 12<sup>th</sup> Street, S.W., Room CY-B402, Washington, DC 20554. Customers may contact BCPI through its web site, <http://www.bcpweb.com>, by email at [fcc@bcpweb.com](mailto:fcc@bcpweb.com), by phone at (202) 488-5300 or (800) 378-3160, or by facsimile at (202) 488-5563. For further information regarding the public reference file for this waiver request, contact Lisa Williams, RIC, (202) 418-1352.

Because of the policy implications and potential impact of this proceeding on persons not party to the Application, it is in the public interest to treat this case as a permit-but-disclose proceeding under the *ex parte* rules. See Sections 1.1200(a) and 1.1206 of the Commission's rules, 47 C.F.R. §§ 1.1200(a) and 1.1206. Therefore, subsequent to the release of this *Public Notice*, *ex parte* presentations that are made with respect to the issues involved in the subject waiver request will be allowed, but must be disclosed in accordance with the requirements of Section 1.1206(b) of the Commission's rules, 47 C.F.R. § 1.1206(b).

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For further information, contact Mr. David Siehl of the Policy Division, Public Safety and Homeland Security Bureau at (202) 418-1313 (voice), (202) 418-7233 (tty), or via e-mail to [David.Siehl@fcc.gov](mailto:David.Siehl@fcc.gov).

By the Chief, Policy Division, Public Safety and Homeland Security Bureau.

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